minimum of voids between stones, avoiding bulging of the mesh. The maximum height from which the stone shall be dropped into the units shall be 36 in. The stone shall be placed to provide a minimum of two courses. Care shall be taken in placing the top layer of stone to ensure a uniform surface to avoid any bulging of the lid mesh. After a basket unit has been filled, the lid shall be bent over until it meets the ends of the unit. The lid shall then be secured to the sides and ends with wire ties or interlocking fasteners. When a complete basket unit cannot be installed on slopes or channels because of space limitations, the basket unit shall be cut to fit as directed by the Engineer.

313.03.05 Backfill. Any excavation voids existing along the edges of the completed gabions shall be backfilled and compacted in a manner acceptable to the Engineer.

313.04 MEASUREMENT AND PAYMENT. Gabions, including cutoff walls will be measured and paid for at the Contract unit price per cubic yard of stone filled wire baskets complete in place. The payment will be full compensation for all excavation, geotextile, stone, ties or fasteners, backfill, compaction, disposal of excess material, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 314 — FLOWABLE BACKFILL FOR UTILITY CUTS

314.01 DESCRIPTION. This work shall consist of furnishing, hauling and placing a flowable cement stabilized backfill material as specified in the Contract Documents or as directed by the Engineer. The material shall be used for utility cut backfill and shall set up to a stabilized mass.

314.02 MATERIALS. The flowable backfill shall consist of a mixture of fly ash, cement, and water and shall be certified by the manufacturer.

Cement	902.03
Fly Ash	902.06
Water	921.01

314.02.01 Fillers. Fillers, when required shall be natural aggregates with a maximum size of 3/4 in. and may include sands. Bottom ash shall not be used as a filler.

314.02.02 Components. Toxic or deleterious components shall not be used in the backfill mixture. The mixture shall have a 28 day, unconfined

compressive strength of 100 psi minimum based on the manufacturer's certification. Certification shall include the actual test data for each mixture to be used.

314.02.03 Analysis. Chemical analysis of the fly ash used in the mixture conducted by the Contractor shall conform to U.S. EPA EP Toxicity Standards. An analysis shall be conducted on fly ash from each stockpile whenever the coal source is changed, replenished or when fly ash from a different source is used. The results of the analysis shall be submitted to the Engineer for approval prior to using the mixture.

314.03 CONSTRUCTION. Placement of the flowable backfill material shall conform to the manufacturer's recommendations or as directed by the Engineer. Utility trenches shall be backfilled full depth to the top of the subgrade using the mixture as specified in the Contract Documents or as directed by the Engineer.

The mixture shall fill all voids during the backfill operation.

The backfilled utility cut shall be protected from freezing and traffic for 24 hours. Paving operations shall not begin for at least 24 hours after backfilling is completed and has been approved by the Engineer.

The Contractor shall keep detailed records of all flowable backfill placed. Records shall include the source of the fly ash, date placed, the location, depth, and the quantity used. These records shall be submitted to the Engineer.

314.04 MEASUREMENT AND PAYMENT. Flowable Backfill for Utility Cuts will be measured and paid for at the Contract unit price per cubic yard. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 315 — INFILTRATION TRENCHES

315.01 DESCRIPTION. This work shall consist of installing infiltration trenches as specified in the Contract Documents or as directed by the Engineer.

315.02 MATERIALS.

Class I Riprap	901.02
PVC Pipe, Schedule 40	905
Geotextile, Class as specified	921.09
Stone	M 43 No. 2